

CHIMAERA System For Cloud Retrievals v 6.0.85

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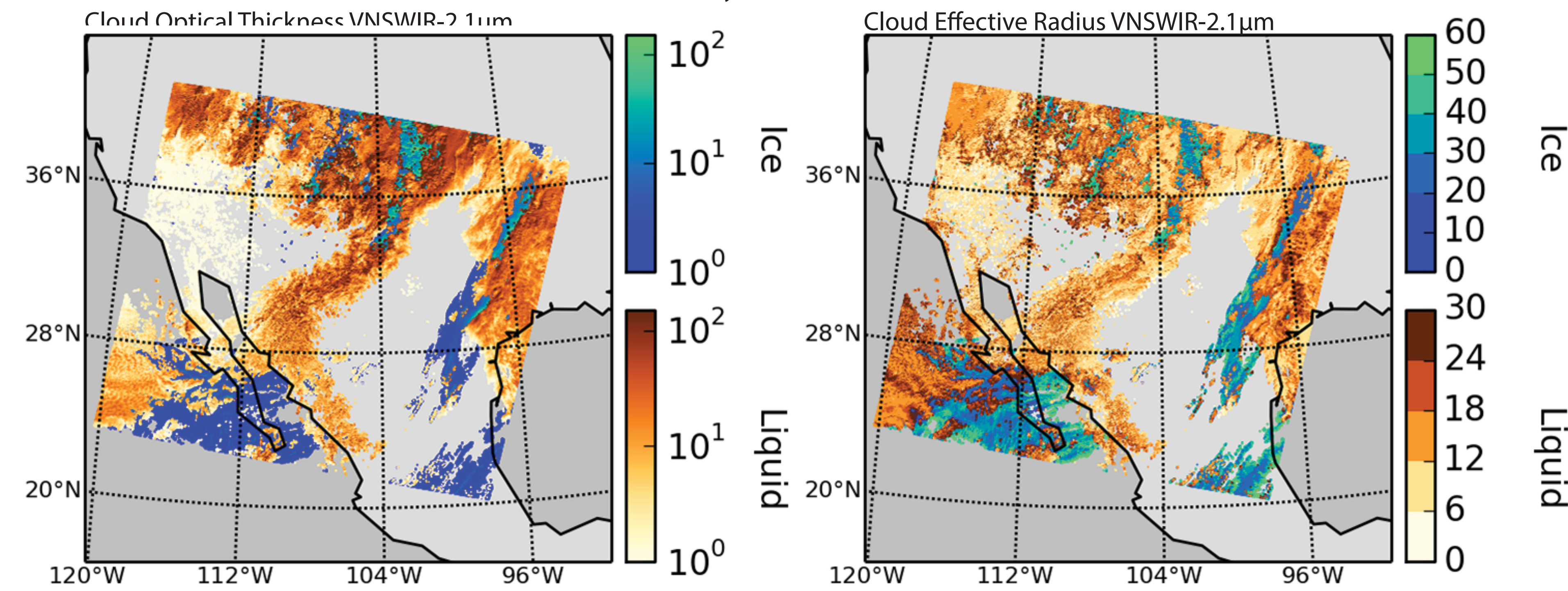
" USRA, Columbia, MD 21046

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CHIMAERA = Cross-platform High Resolution Multi-instrument AtmosphERIC Retrieval Algorithms.

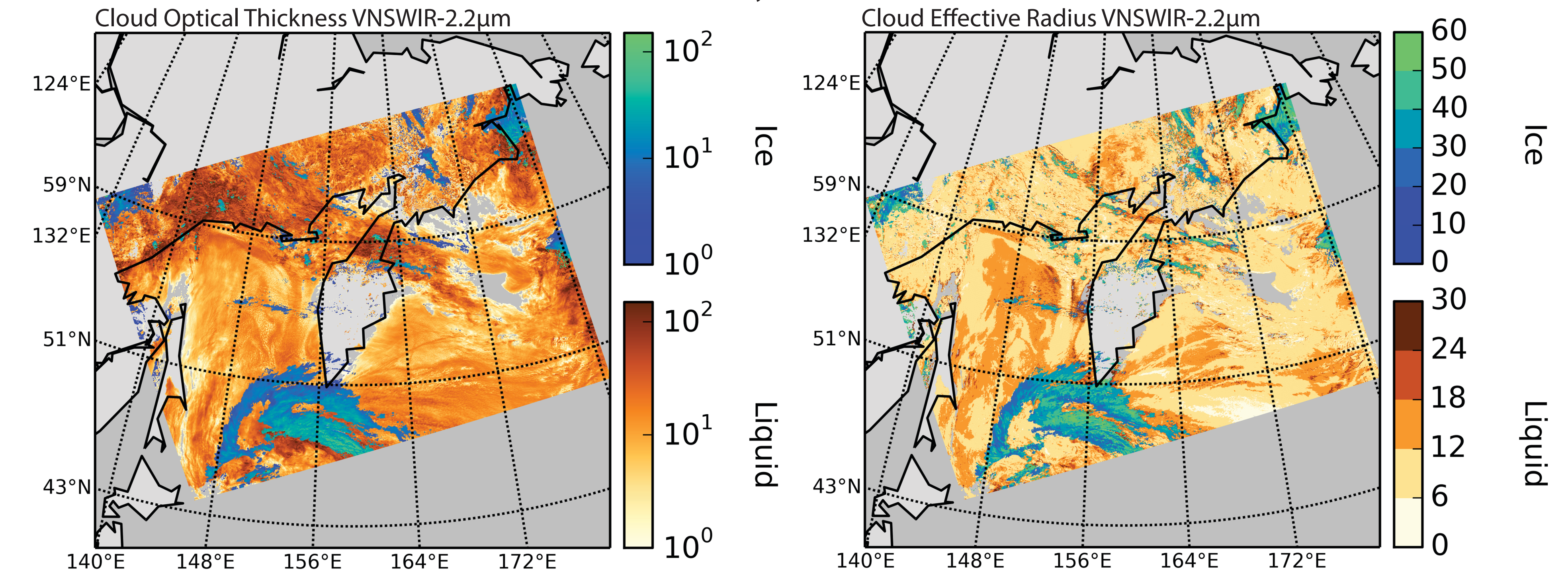
1km or 500m resolution

Terra MODIS 2014 day 360 17:55 UTC



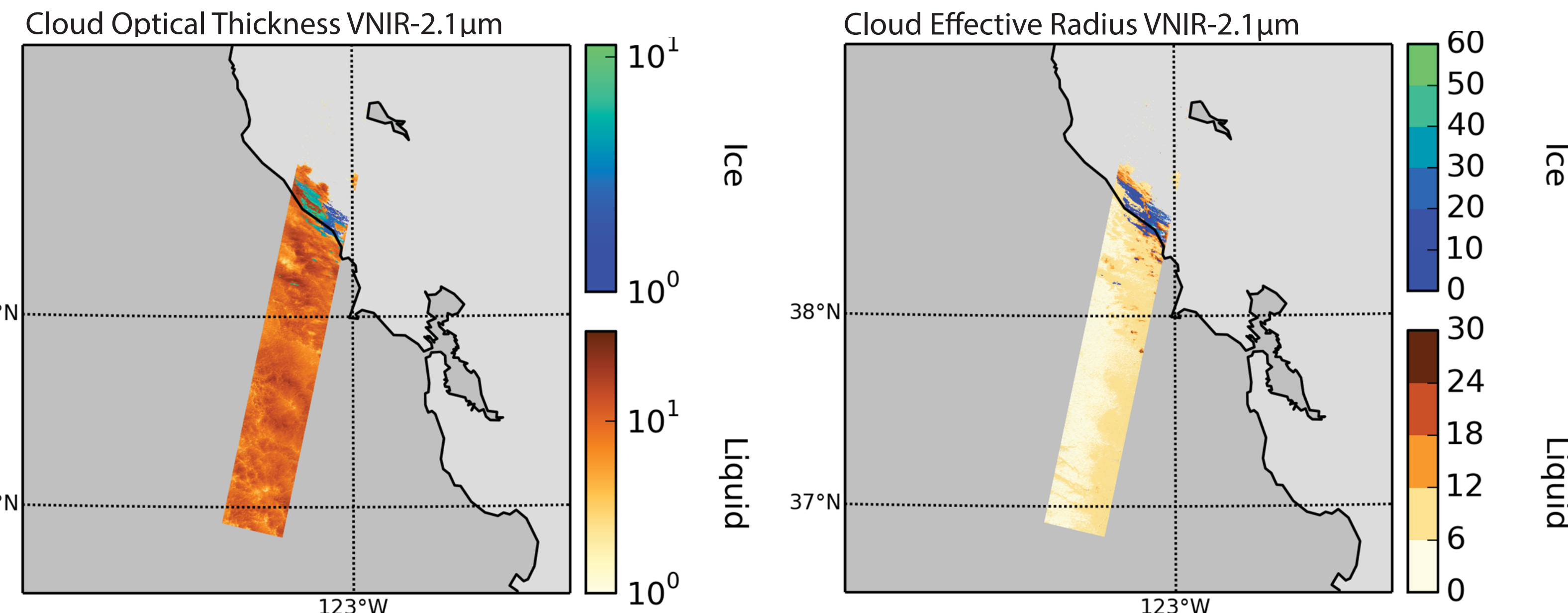
800m resolution

NPP VIIRS 2014 day 187 02:00 UTC



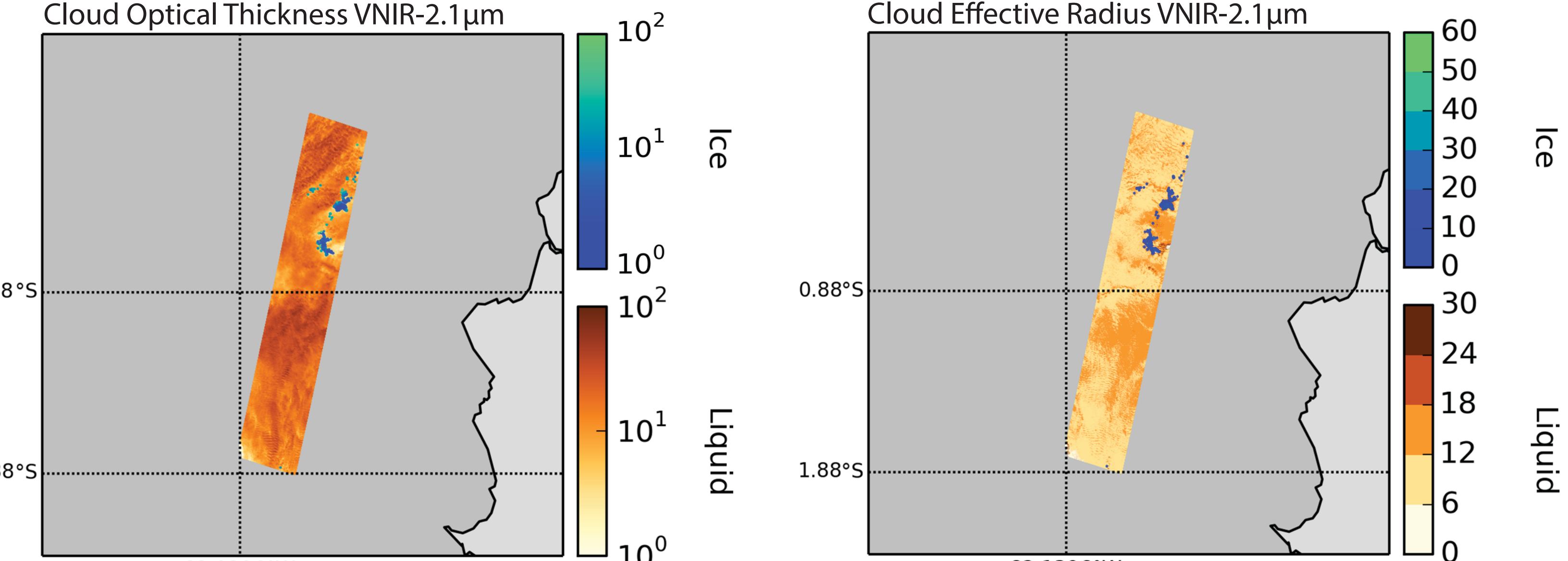
50m resolution

ER-2 eMAS 2013.10.23 18:55 UTC



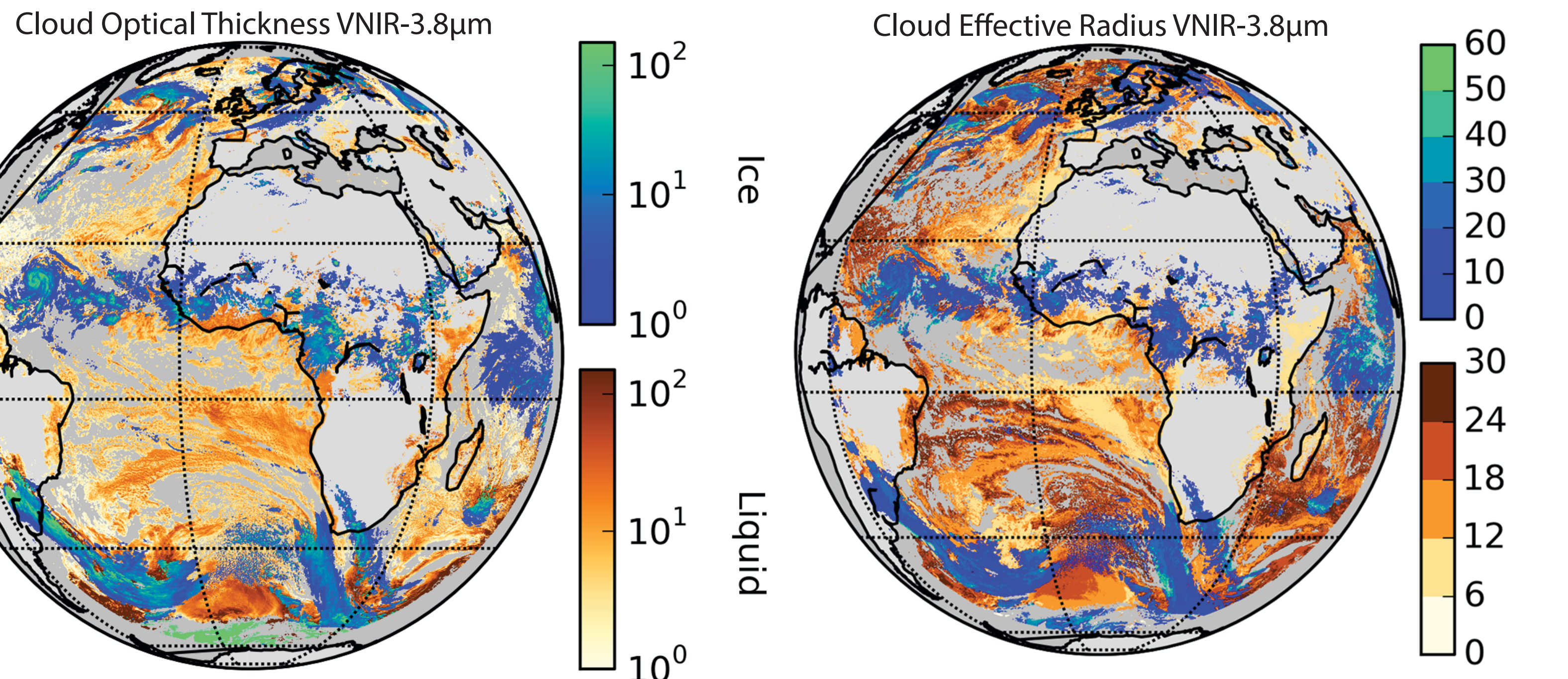
50m resolution

ER-2 MASTER 2007.07.29 15:40 UTC



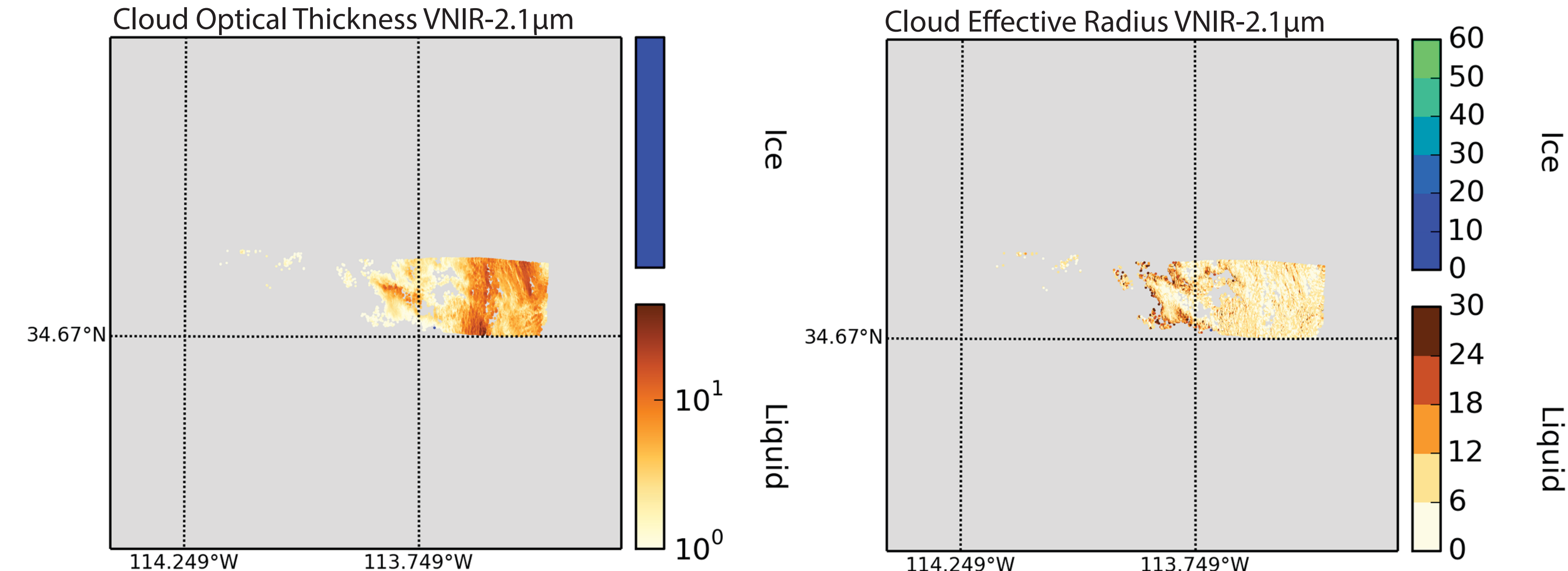
3km resolution

MSG SEVIRI 2009.08.17 12:00 UTC



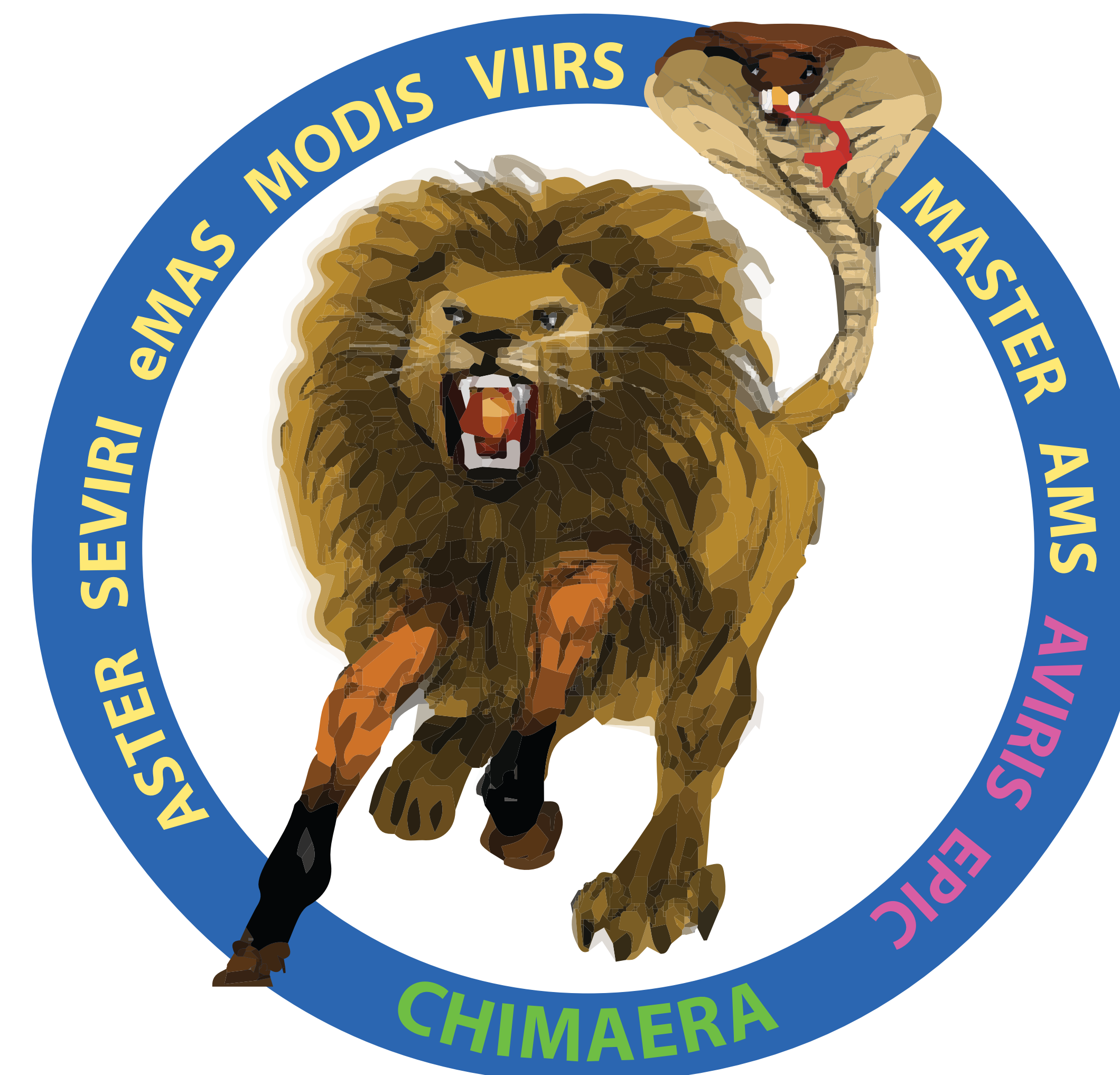
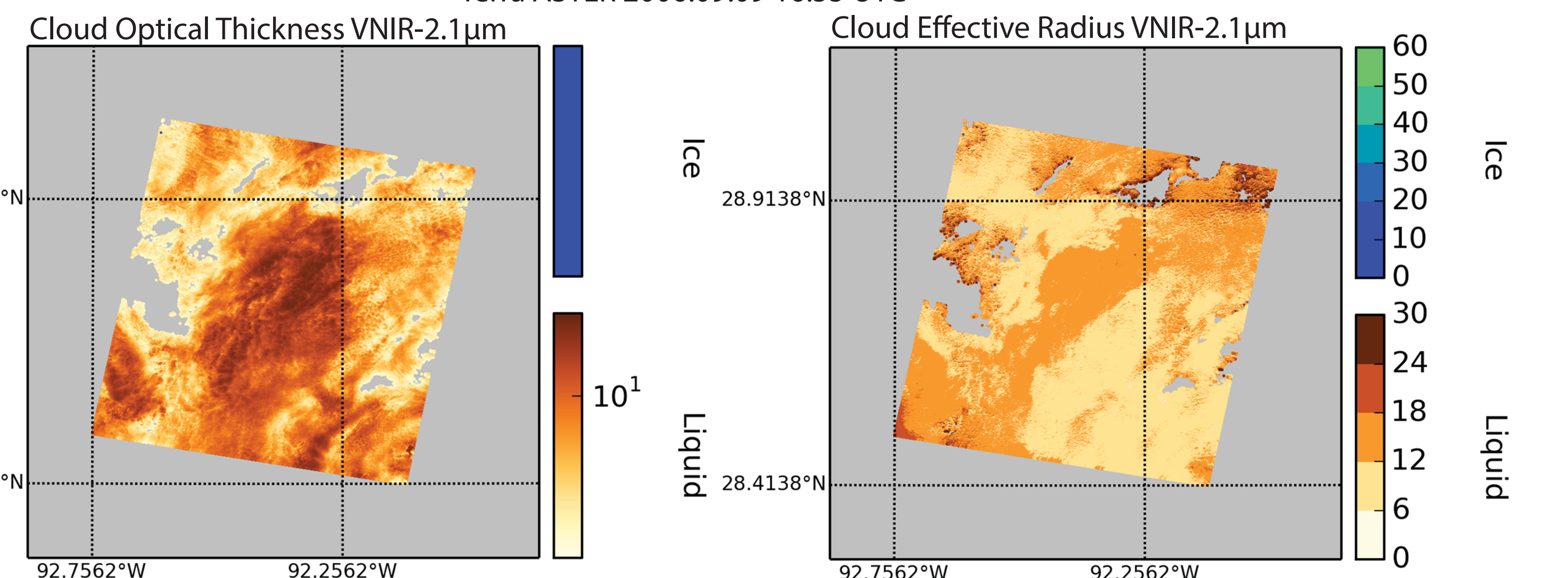
50m resolution

B200 AMS 2011.07.26 15:05 UTC



15m resolution

Terra ASTER 2006.09.09 16:55 UTC



- Have bands? Will retrieve!
- Variety of ancillary model data accepted: NCEP GDAS, ECMWF, GMAO GEOS-5
- Choice of CO2 slicing or Optimal Estimation for cloud top
- Standard operational MOD06 code executed
- Single shared core for all instruments supported provides for easy extension.
- User provides a data reader and any external lookup tables for the instrument and CHIMAERA does the rest
- User provides a new science algorithm that retrieves one pixel and CHIMAERA does the rest
- Runs natively on every operating system (Windows via Cygwin) that has a Fortran compiler

Many instruments = One data format, one set of SDSs.
Ingest MODIS? Ingest everything, no code change.
Display MODIS? See everything, no code change.



- AVIRIS and DSCOVR EPIC support
- Direct MPI execution for parallel machines
- Return of simulation data interface
- Retrieval algorithms other than standard MODIS cloud
- GOES-R
- PACE